AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Amended) A polymerization process comprising contacting:
   (a) a catalyst system;
   (b) monomers comprising at least 85 wt% propylene monomers by total weight of the monomers; and
   (c) an antistatic agent that has been pre-contacted with a scavenger;
   in a reactor under polymerization conditions;
   wherein the antistatic agent is present from 0.3 to 1.5 ppm based on the weight of the monomers introduced into the reactor.

2. (Cancelled)

3. (Currently Amended) The polymerization process of claim ~~2~~ 1, wherein the scavenger comprises an aluminum alkyl compound.

4. (Original) The polymerization process of claim 3, wherein the aluminum alkyl compound is selected from the group consisting of triethylaluminum, trimethylaluminum, tri-isobutylaluminum, tri-n-hexylaluminum, diethyl aluminum chloride, and mixtures thereof.

5. (Original) The polymerization process of claim 4, wherein the aluminum alkyl compound is triethylaluminum.

6. (Original) The polymerization process of claim 1, wherein the antistatic agent comprises a polysulfone copolymer, a polymeric polyamine, an oil-soluble sulfonic acid, or mixtures thereof, with or without a solvent.

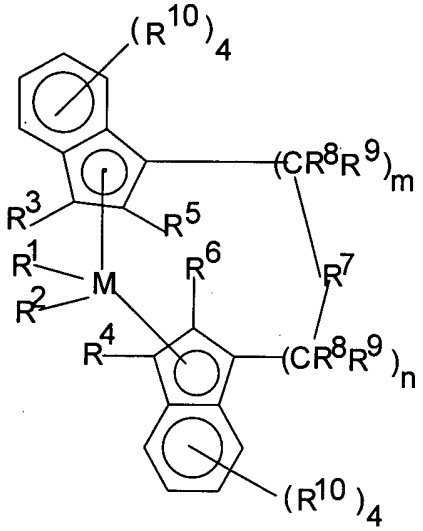
7. (Cancelled)

8. (Cancelled)

9. (Original) The polymerization process of claim 1, wherein the antistatic agent is present from about 0.3 to about 0.8 ppm based on the weight of the monomers introduced into the reactor.

10. (Original) The polymerization process of claim 1, wherein the catalyst system comprises a supported metallocene catalyst system.

11. (Original) The polymerization process of claim 1, wherein the catalyst system comprises a supported metallocene catalyst system comprising a support and a metallocene, the metallocene represented by the following:

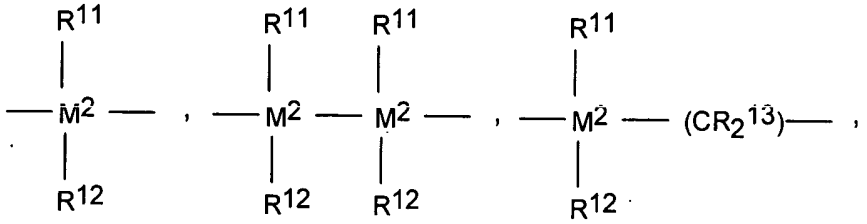


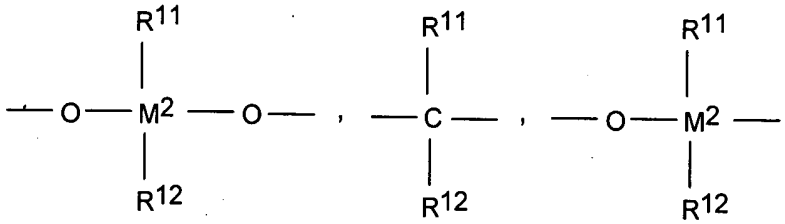
wherein M is a metal of Group 4, 5, or 6 of the Periodic Table;

R^1 and R^2 are identical or different, and are one of a hydrogen atom, a C_1-C_{10} alkyl group, a C_1-C_{10} alkoxy group, a C_6-C_{10} aryl group, a C_6-C_{10} aryloxy group, a C_2-C_{10} alkenyl group, a C_7-C_{40} arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, or a halogen atom;

R^5 and R^6 are identical or different, and are one of a halogen atom, a C_1-C_{10} alkyl group, which may be halogenated, a C_6-C_{10} aryl group, which may be halogenated, a C_2-C_{10} alkenyl group, a C_7-C_{40} -arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, a $-NR_2^{15}$, $-SR^{15}$, $-OR^{15}$, $-OSiR_3^{15}$ or $-PR_2^{15}$ radical, wherein R^{15} is one of a halogen atom, a C_1-C_{10} alkyl group, or a C_6-C_{10} aryl group;

R^7 is





-$B(R^{11})$-, -$Al(R^{11})$-, -Ge-, -Sn-, -O-, -S-, -SO-, -SO_2-, -$N(R^{11})$-, -CO-, -$P(R^{11})$-, or -$P(O)(R^{11})$-;

wherein R^{11}, R^{12} and R^{13} are identical or different and are a hydrogen atom, a halogen atom, a C_1-C_{20} alkyl group, a C_1-C_{20} fluoroalkyl group, a C_6-C_{30} aryl group, a C_6-C_{30} fluoroaryl group, a C_1-C_{20} alkoxy group, a C_2-C_{20} alkenyl group, a C_7-C_{40} arylalkyl group, a C_8-C_{40} arylalkenyl group, a C_7-C_{40} alkylaryl group, or R^{11} and R^{12}, or R^{11} and R^{13}, together with the atoms binding them, can form ring systems;

M^2 is silicon, germanium or tin;

R^8 and R^9 are identical or different and have the meanings stated for R^{11};

m and n are identical or different and are zero, 1 or 2, m plus n being zero, 1 or 2; and

the radicals R^3, R^4, and R^{10} are identical or different and have the meanings stated for R^{11}, R^{12} and R^{13}.

12. (Original) The polymerization process of claim 11, wherein the support is a fluorided support.

13. (Original) The polymerization process of claim 1, wherein the catalyst system comprises a metallocene catalyst system comprising a metallocene selected from the group consisting of Dimethylsilandiylbis (2-methyl-4-phenyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,5-benzoindenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,6-diisopropylindenyl) zirconium dimethyl; Dimethylsilandiylbis(2-ethyl-4-phenyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis (2-ethyl-4-naphthyl-1-indenyl) zirconium dimethyl;

Dimethylsilandiylbis(2-methyl-4-(1-naphthyl)-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4-(2-naphthyl)-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,5-diisopropyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2,4,6-trimethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-ethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2,5,6-trimethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis (2-methyl-4-phenyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,5-benzoindenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,6-diisopropylindenyl) zirconium dichloride; Dimethylsilandiylbis(2-ethyl-4-phenyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis (2-ethyl-4-naphthyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4-(1-naphthyl)-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4-(2-naphthyl)-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,5-diisopropyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2,4,6-trimethyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-ethyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2,5,6-trimethyl-1-indenyl) zirconium dichloride; and mixtures thereof.

14. (Original) The polymerization process of claim 13, wherein the catalyst system further comprises a support.

15. (Original) The polymerization process of claim 14, wherein the support is a fluorided support.

16.–61. (Cancelled)

62. (Currently amended) A method to reduce fouling in a reactor comprising the step of:

(a) adding propylene monomers into the reactor;

(b) adding a catalyst system comprising a metallocene catalyst system;

(c) adding an antistatic agent <u>that has been pre-contacted with a scavenger</u>; and

(d) forming a polymer in the reactor;

wherein the antistatic agent is present from about ~~.05~~ <u>0.3</u> to about ~~200~~ <u>1.5</u> ppm based on the weight of the propylene monomers introduced into the reactor.

63. (Cancelled)

64. (Original) The method of claim 63, wherein the scavenger comprises an aluminum alkyl compound.

65. (Original) The method of claim 64, wherein the aluminum alkyl compound is selected from the group consisting of triethylaluminum, trimethylaluminum, tri-isobutylaluminum, tri-n-hexylaluminum, diethyl aluminum chloride, and mixtures thereof.

66. (Original) The method of claim 65, wherein the aluminum alkyl compound is triethylaluminum.

67. (Original) The method of claim 62, wherein the antistatic agent comprises a polysulfone copolymer, a polymeric polyamine, an oil-soluble sulfonic acid, or mixtures thereof, with or without a solvent.

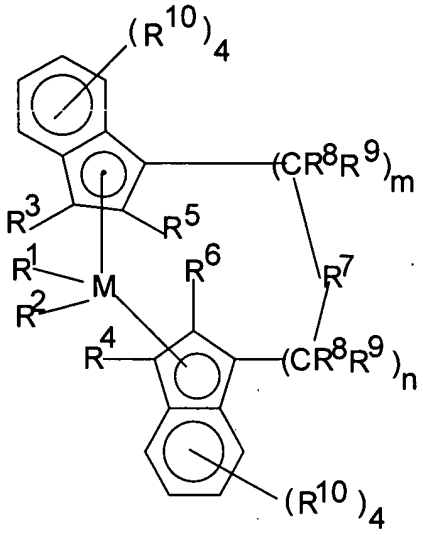
68. (Cancelled)

69. (Cancelled)

70. (Original) The method of claim 62, wherein the antistatic agent is present from about 0.3 to about 0.8 ppm based on the weight of the propylene monomers introduced into the reactor.

71. (Original) The method of claim 62, wherein the metallocene catalyst system comprises a supported metallocene catalyst system.

72. (Original) The method of claim 62, wherein the metallocene catalyst system comprises a support and a metallocene, the metallocene represented by the following:

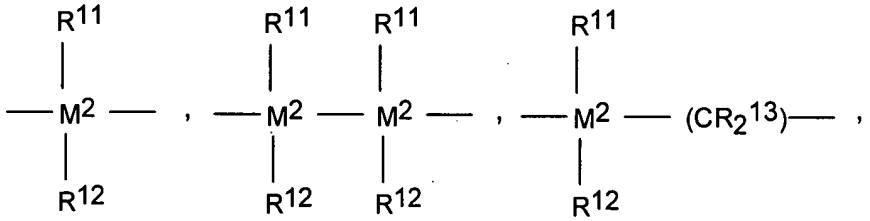


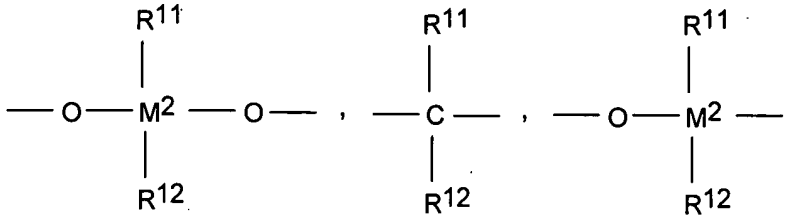
wherein M is a metal of Group 4, 5, or 6 of the Periodic Table;

R^1 and R^2 are identical or different, and are one of a hydrogen atom, a C_1-C_{10} alkyl group, a C_1-C_{10} alkoxy group, a C_6-C_{10} aryl group, a C_6-C_{10} aryloxy group, a C_2-C_{10} alkenyl group, a C_7-C_{40} arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, or a halogen atom;

R^5 and R^6 are identical or different, and are one of a halogen atom, a C_1-C_{10} alkyl group, which may be halogenated, a C_6-C_{10} aryl group, which may be halogenated, a C_2-C_{10} alkenyl group, a C_7-C_{40} -arylalkyl group, a C_7-C_{40} alkylaryl group, a C_8-C_{40} arylalkenyl group, a $-NR_2^{15}$, $-SR^{15}$, $-OR^{15}$, $-OSiR_3^{15}$ or $-PR_2^{15}$ radical, wherein R^{15} is one of a halogen atom, a C_1-C_{10} alkyl group, or a C_6-C_{10} aryl group;

R^7 is





$-B(R^{11})-$, $-Al(R^{11})-$, -Ge-, -Sn-, -O-, -S-, -SO-, $-SO_2-$, $-N(R^{11})-$, -CO-, $-P(R^{11})-$, or $-P(O)(R^{11})-$;

wherein R^{11}, R^{12} and R^{13} are identical or different and are a hydrogen atom, a halogen atom, a C_1-C_{20} alkyl group, a C_1-C_{20} fluoroalkyl group, a C_6-C_{30} aryl group, a C_6-C_{30} fluoroaryl group, a C_1-C_{20} alkoxy group, a C_2-C_{20} alkenyl group, a C_7-C_{40} arylalkyl group, a C_8-C_{40} arylalkenyl group, a C_7-C_{40} alkylaryl group, or R^{11} and R^{12}, or R^{11} and R^{13}, together with the atoms binding them, can form ring systems;

M^2 is silicon, germanium or tin;

R^8 and R^9 are identical or different and have the meanings stated for R^{11};

m and n are identical or different and are zero, 1 or 2, m plus n being zero, 1 or 2; and

the radicals R^3, R^4, and R^{10} are identical or different and have the meanings stated for R^{11}, R^{12} and R^{13}.

73. (Original) The method of claim 72, wherein the support is a fluorided support.

74. (Original) The method of claim 62, wherein the metallocene catalyst system comprises a metallocene selected from the group consisting of Dimethylsilandiylbis (2-methyl-4-phenyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,5-benzoindenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,6-diisopropylindenyl) zirconium dimethyl; Dimethylsilandiylbis(2-ethyl-4-phenyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis (2-ethyl-4-naphthyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4-(1-naphthyl)-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4-(2-naphthyl)-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-4,5-diisopropyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2,4,6-trimethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-methyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2-ethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis(2,5,6-trimethyl-1-indenyl) zirconium dimethyl; Dimethylsilandiylbis (2-methyl-4-phenyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,5-benzoindenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,6-diisopropylindenyl) zirconium dichloride; Dimethylsilandiylbis(2-ethyl-4-phenyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis (2-ethyl-4-naphthyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4-(1-naphthyl)-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4-(2-naphthyl)-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-4,5-diisopropyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2,4,6-trimethyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2-methyl-1-indenyl) zirconium dichloride;

Dimethylsilandiylbis(2-ethyl-1-indenyl) zirconium dichloride; Dimethylsilandiylbis(2,5,6-trimethyl-1-indenyl) zirconium dichloride; and mixtures thereof.

75. (Original) The method of claim 74, wherein the metallocene catalyst system further comprises a support.

76. (Original) The method of claim 75, wherein the support is a fluorided support.

77. (Original) The method of claim 62, wherein the polymer comprises a propylene homopolymer or copolymer.

78.-94. (Cancelled)

95. (New) The polymerization process of claim 1, wherein the polymerization process is selected from the group consisting of continuous gas phase polymerization processes, continuous slurry polymerization processes and continuous polymerization processes.